

PIXEL STRUCTURE FOR IMAGING DEVICES

Abstract of the Disclosure

Pixel structures and a read-out method of pixels are disclosed. The pixel structures and the read-out method improve the image quality of imaging devices or imaging sensors based on such pixels. A pixel (10) comprises in a parallel circuit configuration a radiation sensitive element (1) and an adjustable current source (2), said current source (2) being adapted for delivering a high current. A 4-transistor pixel structure is also disclosed. A method of obtaining a calibrated read-out signal of a pixel having at least a photosensitive element and a current source comprise a number of steps. A photocurrent generated on the pixel added to a current generated by a current source in parallel with the photosensitive element is read to obtain a first signal. The pixel is also read with the current source off to obtain a second signal. The first signal is subtracted from the second signal, and the resulting signal is amplified to obtain the read-out signal.

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